

SHORTER NOTE

***Botrychium virginianum* in California.**—On June 23, 1996, I found a population of *Botrychium virginianum* (L.) Sw. (rattlesnake fern) in the Salmon Mountains of southwestern Siskiyou County, California, about 15 km south of the town of Etna (Etna Quadrangle, T40N R9W, section 7 or 8). The plants were in a wooded, boggy area at about 1300 m elevation, on the west side of Forest Service Road 41N14 (High CCC Road), less than three km northwest of its junction with Tiger Creek Road. A small stream crosses the road at the north side of the boggy area. At least five plants of *B. virginianum* were observed, including two alongside the road, although only a small part of the wettest area was searched. One specimen was collected (*Game 96/043*, UC). In addition to *B. virginianum*, several plants of *Botrychium multifidum* (S. Gmel.) Rupr. were present at the same site (*Game 96/044*, UC). Associated angiosperm species included a conspicuous population of *Lilium pardalinum* and the orchids *Platanthera leucostachys* and *Listera convallarioides*.

Botrychium virginianum is widely distributed in the northern hemisphere, but has not been documented previously in California. It is not treated in any of the standard floras of the state and the nearest documented populations are in Oregon. Populations were mapped in northern Oregon by David H. Wagner (Guide to the species of *Botrychium* in Oregon, unpubl. manuscript, University Herbarium, Dept. of Biology, University of Oregon, Eugene). Additional sites for the species are in the central Oregon Cascades (Lane County) and in Douglas County in southern Oregon (*Rare, threatened and endangered plants and animals of Oregon*, Oregon Natural Heritage Program, Portland, 1991). However, Warren H. Wagner recalls (pers. comm.) seeing *B. virginianum* in northern California several decades ago, but did not collect a specimen. His observation may be the basis for comments by T. M. C. Taylor (*Pacific Northwest ferns and their allies*, University of Toronto Press, Toronto, 1970) and by D. Lellinger (*A field manual of the ferns & fern-allies of the United States & Canada*, Smithsonian Institution Press, Washington, DC, 1985) that this fern ranges south to California. Warren H. Wagner (Flora of North America Editorial Committee eds., *Flora of North America north of Mexico*, Oxford Univ. Press, New York, 1993) reported the species from every state except California, and the current find means that rattlesnake fern is now known from every mainland U.S. state.

The Salmon Mountains, which are part of the Klamath Ranges of California, are already well known for their botanical interest. The *B. virginianum* site is within 8 km of Little Duck Lake and by a tributary of French Creek. These locations are noted for their diversity of conifers, including disjunct southern populations of *Picea engelmannii* and *Abies lasiocarpa*, which are common well to the north. It is probably no coincidence that *B. virginianum*, which in the West also prefers the cooler, wetter climates of the northern states, is able



FIG. 1. A *Botrychium virginianum* plant photographed in the field in California on June 23, 1996.

to survive in California at this same southern outpost in Siskiyou County. Finally, the occurrence of *B. multifidum* and *B. virginianum* at the same site supports David H. Wagner's observation that *B. multifidum* usually occurs, "Anywhere any other *Botrychium* occurs, with the exception of *B. pumicola*" (Guide to the species of *Botrychium* in Oregon, unpubl. manuscript, University Herbarium, Dept. of Biology, University of Oregon, Eugene). *Botrychium multifidum* is relatively widespread in California, and is known from Jackson and Josephine Counties in southern Oregon. However, it too is not reported from California's Klamath Range region (KR) by Warren H. Wagner in the Jepson Manual (J. C. Hickman, ed., University of California Press, Berkeley, 1993).

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